

Title (en)
ELECTRIC MOTOR AND GEARING ASSEMBLY

Title (de)
ELEKTROMOTOR UND GETRIEBEBBAUGRUPPE

Title (fr)
MOTEUR ÉLECTRIQUE ET ENSEMBLE D'ENGRENAGES

Publication
EP 3352343 A3 20181121 (EN)

Application
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Priority
US 201715412369 A 20170123

Abstract (en)
[origin: EP3352343A2] An apparatus (40, 100) with an electric motor (42) including a stator (44, 116, 124) and a rotor (46, 118, 126); a shaft (50, 128) secured to the rotor (46, 118, 126); a gearing assembly (52) coupled with the shaft (50, 128); and a housing assembly (54, 102) defining a non-partitioned interior space (56) housing both the electric motor (42) and gearing assembly (52). The shaft (50, 128) may be unsupported by bearing assemblies and/or free of oil seals and similar sealing engagements between the electric machine and gearing assembly (52). The motor (42) may be an axial flux motor (114) having a single stator (44, 116, 124). The gearing assembly (52) may be a planetary reduction gear assembly (70) with a sun gear (68) mounted on the shaft (50, 128). The apparatus (40, 100) may include only a single electric motor (42) or include a second electric motor (42) and second gearing assembly (52). The embodiments having a single motor (42) may be used to drive a fan (86) or a vehicle wheel (94, 110). The embodiments having two motors (42) may be used as a differential drive.

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